



Figure 1: Photo of 15115. Scale in cm/mm. S77-22584.

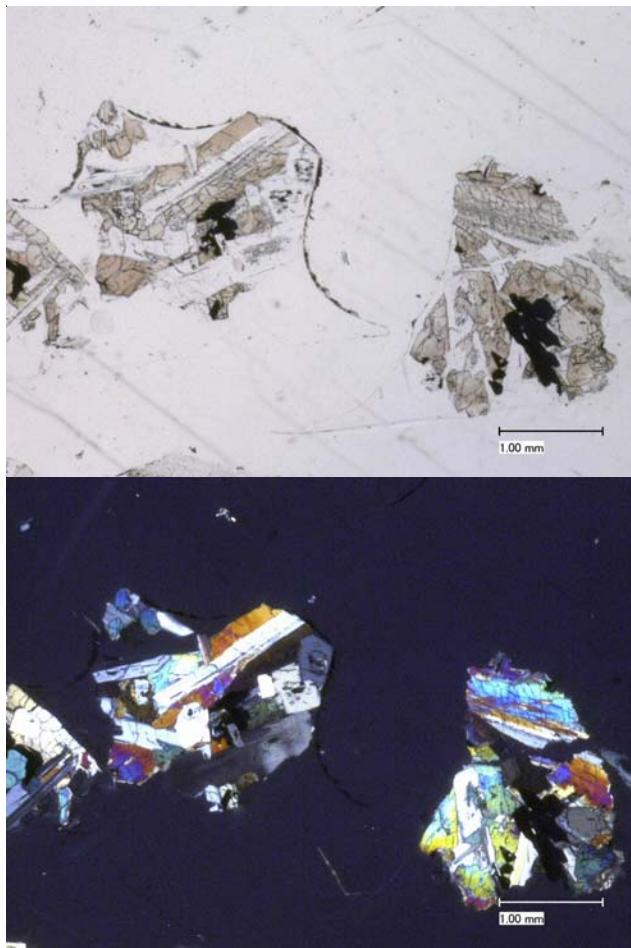


Figure 2: Photomicrographs of thin section 15115,3 by C Meyer @ 50x.

15115

Pigeonite Basalt

4 grams

Introduction

15115 is a relatively coarse basalt. It was collected as a rake sample from station 2, Apollo 15. Ryder (1985) described it as an “olivine-normative basalt”. Gose et al. (1972) and Pearce et al. (1973) determined the magnetic properties and Ma et al. (1978) reported the chemical composition (see figures).

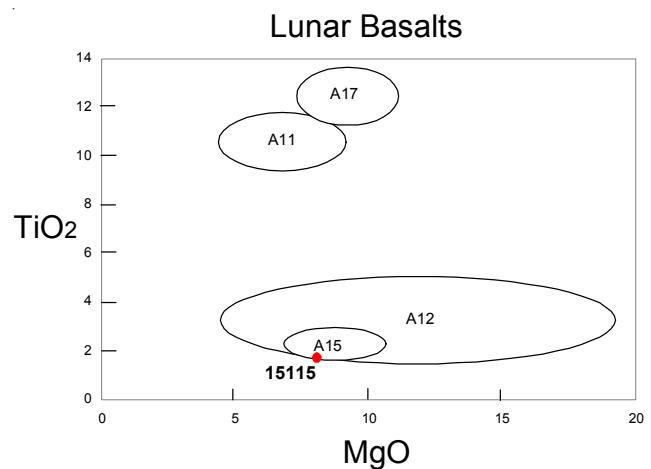


Figure 3: Chemical composition of 15115 compared with other Apollo basalts.

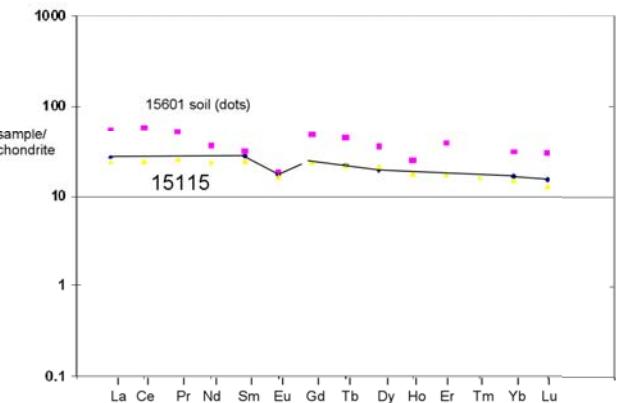


Figure 4: Normalized rare-earth-element diagram for 15115, with 15601 soil for comparison.

Table 1. Chemical composition of 15115.

reference	Ma78	
<i>weight</i>		
SiO ₂ %		
TiO ₂	1.8	(a)
Al ₂ O ₃	9.6	(a)
FeO	20	(a)
MnO	0.275	(a)
MgO	8	(a)
CaO	10	(a)
Na ₂ O	0.306	(a)
K ₂ O	0.055	(a)
P ₂ O ₅		
S %		
sum		
Sc ppm	45	(a)
V	187	(a)
Cr	3051	(a)
Co	41	(a)
Ni	10	(a)
Cu		
Zn		
Ga		
Ge ppb		
As		
Se		
Rb		
Sr		
Y		
Zr		
Nb		
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm		
Ba	70	(a)
La	6.3	(a)
Ce		
Pr		
Nd		
Sm	4.1	(a)
Eu	0.94	(a)
Gd		
Tb	0.8	(a)
Dy	4.7	(a)
Ho		
Er		
Tm		
Yb	2.7	(a)
Lu	0.37	(a)
Hf	2.6	(a)
Ta	0.43	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb		
Pt ppb		
Au ppb		
Th ppm		
U ppm		
technique: (a) INAA		

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